

**MULTIPLE ANTIGENIC PEPTIDES IMMUNOGENIC AGAINST
*STREPTOCOCCUS PNEUMONIAE***

ABSTRACT OF THE DISCLOSURE

The invention provides a nucleic acid encoding the 37-kDa
5 pneumococcal surface adhesion A protein (PsaA) from *Streptococcus pneumoniae*. ~~Also provided are isolated nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein.~~ The invention also provides purified polypeptides encoded by the nucleic acid encoding the 37-kDa protein from and the nucleic acids comprising unique fragment of at least
10 10 nucleotides of the 37-kDa protein. ~~The invention further provides monoclonal antibodies which selectively bind PsaA. In addition, peptides are provided that immunospecifically bind to the monoclonal antibodies of the invention, and that are immunogenic against *Streptococcus pneumoniae* infection.~~ Additionally, multiple antigenic peptides that provide protection
15 against *S. pneumoniae* challenge are provided. These multiple antigen peptides comprise the peptides that immunospecifically bind to the monoclonal antibodies. Also provided are vaccines comprising such immunogenic peptides, and methods of conferring protective immunity
20 against *Streptococcus pneumoniae* infection by administering therapeutic composition comprising the immunogenic peptides of the invention. Also provided are methods of detecting the presence of *Streptococcus pneumoniae* in a sample using antibodies or antigens and methods of preventing and treating *Streptococcus pneumoniae* infection in a subject. ~~In addition, a method of identifying the sequence of a peptide potentially capable of eliciting protective immunity against a pathogenic microorganism is provided.~~
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